

AF/2834  
Jrw

Docket No.: 1789.1019

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

re the Application of:

Nicholas J. DeCristofaro, et al.

Serial No. 09/506,533

Group Art Unit: 2834

Confirmation No. 7488

Filed: February 17, 2000

Examiner: Karl I. Tamai

For: AMORPHOUS METAL STATOR FOR A RADIAL FLUX ELECTRIC MOTOR

**REPLY BRIEF**

Commissioner for Patents  
PO Box 1450  
Alexandria VA 22313-1450

This is in response to the Examiner's Answer mailed July 23, 2004, and having a date for reply of September 23, 2004.

**New Power of Attorney:**

As noted in the Appeal Brief, the Assignee of the Entire Interest in the above-cited application is METGLAS, INC. Please note the new Power of Attorney filed May 25, 2004 (copy enclosed).

Accordingly, all correspondence should be directed to STAAS & HALSEY LLP as listed below:

STAAS & HALSEY LLP  
1201 New York Avenue, N.W.  
Suite 700  
Washington, D.C. 20005  
Telephone: (202) 434-1512  
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**I. Introduction:**

The Examiner's Answer recites the issues as (a) a restatement of the outstanding



rejection of the claims under 35 U.S.C. §112 (Item 6, Issue (a) from p. 6 of the Appellants' Appeal Brief), and (b) whether the objection to the drawings is a petitionable/appealable issue to the Commissioner under 37 C.F.R. §1.181 (Item 6, Issue (b) from p. 6 of the Appellants' Appeal Brief).

Prior art rejections with respect to issues (c)-(k) from pp. 6-8 the Appellants' Appeal Brief are withdrawn.

## **II. Grouping of the Claims:**

The Examiner submits that Applicants have not provided support for the separation of claims as cited in Item (7), page 8, of Appellants' Appeal Brief.

Since claim 1 recites the amorphous metal stator of the present invention, and claim 35 recites a brushless radial flux DC motor comprising the amorphous metal stator of the present invention together with a means for supporting same, it is submitted to be clear to one skilled in the art that claims 1 and 35 stand or fall together.

Since claims 3 and 8 depend from claim 2, claims 3 and 8 clearly stand or fall with claim 2.

Since claims 4 and 5 clearly recite the inner restraining means of claim 3, claims 4 and 5 stand or fall together.

Since claims 6 and 7 describe the bonding material, claims 6 and 7 stand or fall together.

Since claim 11 depends from claim 10 and further limits claim 10, claims 10 and 11 stand or fall together.

Since claims 16-18 recite the various levels of core loss, claims 16-18 stand or fall together.

Since claims 20-21 depend from claim 19, further limiting the heat treatment, claims 19-21 stand or fall together.

Since claims 23-25 depend from independent claim 22, claims 22-25 stand or fall together.

Since claim 34 depends from claim 26, and claim 36 is highly related to claim 26, claims 26, 34, and 36 stand or fall together.

Since claims 29-30 depend from claim 28 and further describe the heat treatment, claims 28-30 stand or fall together.

Since claims 31-33 depend from claim 26 and recite the various levels of core loss, claims 31-33 stand or fall together.

As may be seen from the specific recitations of claims 9, 12, 13, 14, 15 and 27, said recitations stand or fall individually.

**III. Examiner's Comments:**

**A. Examiner's Answer with Respect to Issue (a)**

It is respectfully submitted that, in response to the Examiner's first raised objection to the originally filed drawings, applicants' amendment dated January 16, 2002 amended the Figures and the Specification (see also page 11, line 15 through page 18, line 17, of Appellants' Appeal Brief) to show more clearly the line normal to the top and bottom surfaces of the amorphous metal strips which comprise said teeth at any point on the surfaces being substantially perpendicular to the axis of the rotation of the rotor, as is recited in claims 1, 22, 26, 35, 36, 37, 41 and 47.

As was pointed out on page 18, lines 6-12 of Appellants' Appeal Brief: "In particular, Figs. 4A and 4B were amended to include lines labeled 'N' that are normal to the surface at representative points of the tooth and back-iron sections 230, 220 of the depicted segment. Fig. 5 was amended to include an arrow labeled 'R' depicting the rotation of rotor 100. It is submitted that one of ordinary skill would recognize the axis of rotation of rotor as being perpendicular to the plane of the paper in light of the indicated rotation. Corresponding amendments have also been made to the specification."

Thus, it is respectfully submitted that the line normal to the top and bottom surfaces of the teeth at any point on the surfaces is substantially perpendicular to the axis of the rotation of the rotor, as is recited in claims 1, 22, 26, 35, 36, 37, 41 and 47.

**B. Examiner's Answer with Respect to Issue (b) - Drawings**

The Examiner agreed that an objection to the drawings is not an appealable issue.

**C. Examiner's Answer with Respect to Issues (c-j)**

The Examiner withdrew his rejections of claims 1-36 with respect to the cited references.

**IV. Summary:**

For the reasons set forth above and in the Appeal Brief, previous Office Action responses filed in this application, and this Reply Brief, it is submitted that the invention as claimed in claims 1-36 complies with the written description requirement of 35 U.S.C. §112 and that the line normal to the top and bottom surfaces of the teeth at any point on the surfaces is substantially perpendicular to the axis of the rotation of the rotor, as is recited in claims 1, 22, 26,

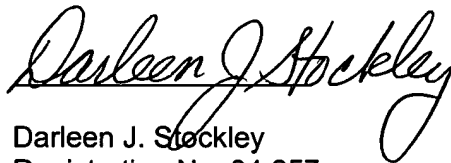
35, 36, 37, 41 and 47.

Thus, it is respectfully submitted that the Examiner's final rejection of the claims is without support and, therefore, erroneous. Accordingly, the Board of Patent Appeals and Interferences is respectfully urged to so find and to reverse the Examiner's final rejection.

If any fees are required in connection with the filing of this Reply Brief, please charge same to our Deposit Account No. 19-3935. Respectfully submitted,

Respectfully submitted,

STAAS & HALSEY LLP



Darleen J. Stockley  
Registration No. 34,257

Dated: September 23, 2004

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**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST**  
**AND REVOCATION OF PRIOR POWERS**

Honorable Commissioner of  
Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

As assignee of record of the entire right, title, and interest, the undersigned corporation hereby revokes all previous powers of attorney and appoints the attorneys and/or agents of Staas & Halsey LLP, under USPTO Customer No. 21,171, to prosecute and transact all business in the U.S. Patent and Trademark Office for the following listed patent applications:

DOCKET NO.	SERIAL NO.	FILING DATE	INVENTOR(S)	TITLE
1789.1015	08/918,194	April 25, 2001	David M. NATHASINGH, et al.	SEGMENTED TRANSFORMER CORE
1789.1019	09/506,533	February 17, 2000	Nicholas J. DECRISTOFARO, et al.	AMORPHOUS METAL STATOR FOR A RADIAL- FLUX ELECTRIC MOTOR
1789.1026	09/891,033	June 25, 2001	Howard H. LIEBERMANN, et al.	GEOMETRICALLY ARTICULATED AMORPHOUS METAL ALLOYS, PROCESSES FOR THEIR PRODUCTION AND ARTICLES FORMED THEREFROM
1789.1032	10/279,250	October 24, 2002	Nicholas J. DECRISTOFARO, et al.	BULK STAMPED AMORPHOUS METAL MAGNETIC COMPONENT
1789.1033	10/286,736	November 1, 2002	Nicholas J. DECRISTOFARO, et al.	BULK AMORPHOUS METAL INDUCTIVE DEVICE

DOCKET NO.	SERIAL NO.	FILING DATE	INVENTOR(S)	TITLE
1789.1035	10/348,075	January 21, 2003	Ryusuke HASEGAWA, et al.	MAGNETIC IMPLEMENT HAVING A LINEAR BH LOOP
1789.1037	10/354,791	January 30, 2003	Ryusuke HASEGAWA, et al.	MAGNETIC IMPLEMENT USING MAGNETIC METAL RIBBON COATED WITH INSULATOR
1789.1039	10/423,791	April 25, 2003	Nicholas J. DECRISTOFARO, et al.	SELECTIVE ETCHING PROCESS FOR CUTTING AMORPHOUS METAL SHAPES
1789.1040	10/644,220	August 21, 2003	Shinya MYOJIN, et al.	COPPER-NICKEL-SILICON TWO PHASE QUENCH SUBSTRATE
1789.1046	10/071,368	February 8, 2002	Ryusuke HASEGAWA, et al.	FILTER CIRCUIT HAVING AN FE-BASED CORE
1789.1049	10/235,068	September 5, 2002	Nicholas J. DECRISTOFARO, et al.	METHOD OF CONSTRUCTING A UNITARY AMORPHOUS METAL COMPONENT FOR AN ELECTRIC MACHINE

All correspondence and telephone communications should be directed to:

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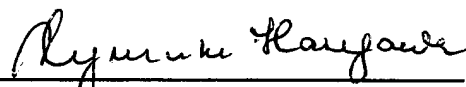
USPTO Customer No. 21171

### ASSIGNEE CERTIFICATION

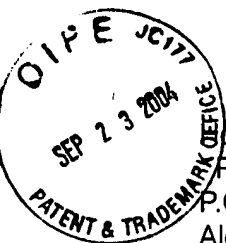
The undersigned assignee further states that the registered attorneys and/or agents, identified in the new power of attorney above, are empowered and authorized to sign the statement(s) and certification(s) under 37 C.F.R. §3.73(b) on behalf of the assignee. Attached to this power is/are "CERTIFICATE(S) UNDER 37 C.F.R. §3.73(b)".

METGLAS INC.

Dated: 20 May 2009

By:   
Ryusuke Hasegawa  
Vice-President, Research & Development  
440 Allied Drive  
Conway, South Carolina 29526

**STATEMENT AND CERTIFICATION UNDER 37 C.F.R. §3.73(b)**



Honorable Commissioner of  
Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This statement hereby certifies that the below-listed patent applications are owned and continue to be owned by the Assignee, METGLAS INC., by way of Assignments, and those Assignments recorded at the USPTO with available data are identified below:

DOCKET NO.	SERIAL NO.	FILING DATE	INVENTOR(S)	TITLE	ASSIGNMENT RECORDATION DATE	REEL/FRAME
1789.1015	08/918,194	April 25, 2001	David M. NATHASINGH, et al.	SEGMENTED TRANSFORMER CORE	September 25, 2003	014527/0116
1789.1019	09/506,533	February 17, 2000	Nicholas J. DECRISTOFARO, et al.	AMORPHOUS METAL STATOR FOR A RADIAL-FLUX ELECTRIC MOTOR	September 25, 2003	014527/0116
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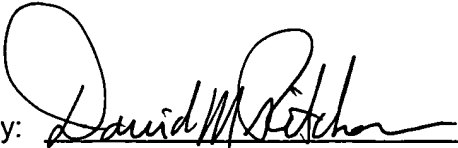


DOCKET No.	SERIAL No.	FILING DATE	INVENTOR(S)	TITLE	ASSIGNMENT RECORDATION DATE	REEL/FRAME
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1789.1035	10/348,075	January 21, 2003	Ryusuke HASEGAWA, et al.	MAGNETIC IMPLEMENT HAVING A LINEAR BH LOOP	Not Available	Not Available
1789.1037	10/354,791	January 30, 2003	Ryusuke HASEGAWA, et al.	MAGNETIC IMPLEMENT USING MAGNETIC METAL RIBBON COATED WITH INSULATOR	Not Available	Not Available
1789.1039	10/423,791	April 25, 2003	Nicholas J. DECRISTOFARO, et al.	SELECTIVE ETCHING PROCESS FOR CUTTING AMORPHOUS METAL SHAPES	Not Available	Not Available
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1789.1046	10/071,368	February 8, 2002	Ryusuke HASEGAWA, et al.	FILTER CIRCUIT HAVING AN FE-BASED CORE	September 25, 2003	014527/0116
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If there are any fees associated with the filing of this Statement and Certification, please charge and/or credit the same to our Deposit Account No. 19-2925.

STAAS & HALSEY LLP

Dated: May 25, 2004

By:   
David M. Pitcher  
Registration No. 25,908

DMP:AO

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